DOCUMENT RESUME

ED 463 565 EA 031 564

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TITLE	Do High Stakes Tests Drive Up Student Dropout Rates? Myths versus Reality. Knowledge Brief.
INSTITUTION	WestEd, San Francisco, CA.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	2001-00-00
NOTE	13p.
CONTRACT	ED-01-CO-0012
AVAILABLE FROM	WestEd, 730 Harrison Street, San Francisco, CA 94107-1242. Tel: 415-565-3000; Tel: 877-493-7833 (Toll Free). For full text: http://www.wested.org.
PUB TYPE	Reports - Evaluative (142)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Dropout Characteristics; *Dropout Rate; *Dropout Research; *Dropouts; *Educational Assessment; High Schools; *High Stakes Tests; Potential Dropouts; Test Use

ABSTRACT

This report proposes that not enough good data or research has been done to settle the debate over whether testing affects high school dropout rates. Advocates argue that the threat of missing out on a diploma or of being retained motivates students to work harder, resulting in higher academic achievement. Critics argue that failing a high school exam, being retained, or anticipating such failure can push students over the academic edge, causing them to quit school. Problems with understanding the dropout issue include inconsistencies with how dropouts are defined and reported. Testing produces information that is limited in both scope and analytical methodology. While some studies suggest broad reasons for dropping out, such as not liking school or not getting along with teachers, no causal connection has been revealed between any single factor and the decision to quit school. The report recommends that negative unintended consequences of high-stakes test programs be disclosed, that keeping accurate dropout data is important, and that states allow a fair phase-in program to allow for alignment of curriculum, teaching practice, and assessment. Research recommendations include doing more credible and extensive data collection, and implementing more longitudinal studies and causal research. (Contains 38 references.) (RT)

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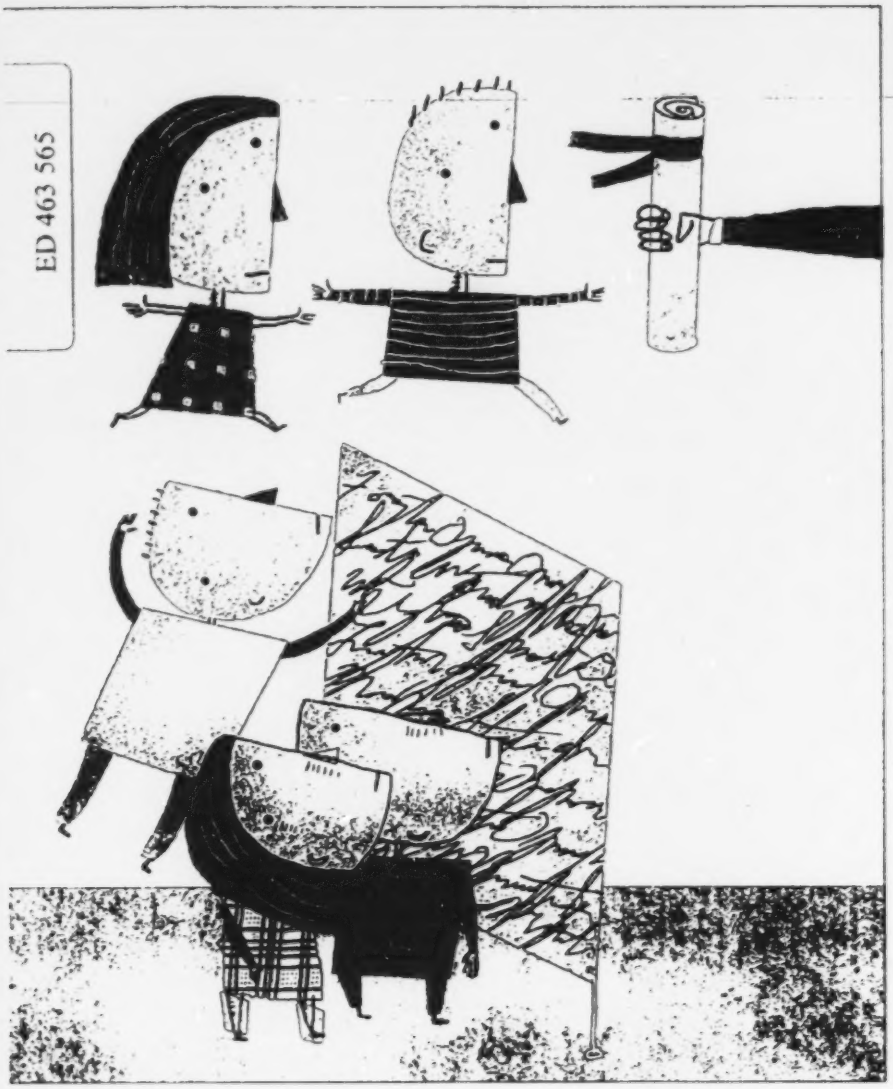

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Do HIGH STAKES Tests drive up Student dropout rates?

myths versus reality

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WestEd
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The increased use of testing to determine whether students can graduate from high school or be promoted to the next grade has evoked much discussion about its possible impact on students' decisions to drop out of school. Advocates argue that this new student accountability mechanism — the threat of missing out on a diploma or, for younger pupils, of being retained — motivates students to work harder, resulting in higher academic achievement. Critics, on the other hand, argue that failing a high school exit exam, being retained, or, even, just anticipating such failure can push some students over the academic edge, causing them to quit school. The result, they say, will be higher dropout rates. Each side can point to some research findings that support its contention.

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This *Knowledge Brief* proposes that there has not been enough good data or research to settle that debate. More importantly, it suggests that if we really want to understand dropout trends, the current focus on high-stakes testing per se is too narrow. More pertinent is the impact of standards-based reform writ large, which *includes* the adoption of statewide accountability systems intended to give it clout. How is this broad reform effort, especially the adoption of "rigorous," "world-class" academic standards, affecting the education experiences of borderline pupils, those most at risk of academic failure? Is it leading them to higher achievement or is it leaving them further behind?

Inherent in this standards-and-accountability model of the late 20th and early 21st century is a commitment to ensuring academic success for student groups that have not been adequately served in the past. No group more obviously fits that definition than students who decide to quit school before graduating. The degree to which a school can offset adverse circumstances in a student's home or community is open to discussion. But the standards-based reform model is premised on the belief that when educators are well trained and supported and when all members of the school community are clear about what students are expected to learn and what the stakes are, school can, in fact, ensure that all students learn. Thus, in theory, when standards-based reform was fully implemented, dropout rates would go down. For that reason, understanding how rates are being affected, if at all, during the relatively early stages of implementation would be an important step in tracking the progress of this reform and guiding its continued implementation.

Unfortunately, such understanding is more elusive than one might initially assume. This is true for several reasons, not least of which is the relative newness of the standards-and-accountability package. While exit exams and other forms of high-stakes testing have been used in the past, never have they been so ubiquitous or measured such rigorous academic standards. In addition, as this brief will further explain, some significant technical impediments hinder our full understanding of the dropout issue, especially as it relates to standards and accountability. Chief among them is the difficulty of achieving consistency, first, in how dropouts are defined and, then, in how dropout rates are reported. Another constraint is the prevalence of an incomplete research model that looks primarily at the single and narrow variable of high-stakes testing absent the larger context of standards. Finally, there is researchers' dependency on limited correlational methodology, rather than one that incorporates some degree of experimental controls.

Before continuing, it should be noted that even in the most effective schools, some degree of dropout is anticipated. Some problems in a student's life outside of school may not be mitigated even by the most capable teacher or the most committed dropout prevention efforts. The intent of this brief is to move the discussion away from the individual student to the effects of the recent reform agenda on *groups* of students considered at risk academically (e.g., children in poverty, special education students, English language learners).

Dropouts: An Elusive Indicator

Neither the concern about dropout rates nor the attempt to track them is new. For much of the last century, a high school diploma or its equivalent was considered a passport to either a good job or to further education. Today, with fewer well-paying

positions available to those who have *only* a high school education, the diploma alone (or its equivalent) is less effective in guaranteeing any kind of non-dead-end job. But it remains essential for the advanced education and training now requisite to a growing proportion of those jobs that pay a living wage. Thus, in today's highly competitive economic environment, the future success of those who leave school without completing at least their K-12 education is problematic — a fact that has ramifications for them as individuals, but also for the economy and for society.

Some states have decided to distinguish between school "dropouts" and school "leavers," excluding the latter from their dropout rate calculation.

Recognizing the increasing importance of a high school degree, the National Education Goals Panel (NEGP) targeted, as Goal #2, achievement of at least a 90 percent high school completion rate by the year 2000. Yet little progress appears to have been made. In its 1999 report, the NEGP noted that the national high school completion rate (i.e., the percentage of 18- to 24-year-olds who complete high school or receive an alternative credential) had increased only two percentage points since 1973, remaining at a relatively flat 85–86 percent during the 1990s.

Dropout rates offer a different perspective on the same story, serving as the complementary opposite of completion rates. For example, the proportion of 16- to 24-year-olds who are not in school *and* have not received a diploma or its equivalent constitutes what's known as the "status" dropout rate. That rate, as reported by the U.S. Department of Education's National Center for Education Statistics (NCES), was approximately 11percent for 1999. Readers will note that the status dropout rate does not precisely complement the 85.9 percent completion rate also reported by NCES for 1999 because the status rate definition encompasses a larger age range than does the completion rate (16-24 versus 18-24). This discrepancy is just one indication of a longstanding and continuing challenge to our understanding of the dropout situation: While most people find it easy to define and discuss the dropout phenomenon in general terms, the variety of definitions and collection and calculation methods now in use make it difficult to pin down the specifics.

Because there are several different definitions of dropouts and various ways of calculating rates, a particular definition or calculation method may be selected to advance a political or policy agenda. For example, many states report an *annual* dropout rate of around 4 percent. This means that in any given school year, approximately 4 students out of 100 enrolled (in all secondary grades combined) drop out of school. However, this means that by the time the freshmen reach graduation, 16 percent of their class will have dropped out — a cumulative rate that paints quite a different picture of the education system's success. Similarly, some states have decided to distinguish between school "dropouts" and school "leavers," excluding the latter from their dropout rate calculation. State-by-state comparisons are made difficult by these and other variations, such as how a state counts students who leave school and later re-enter, or how it counts students who complete high school by an alternative means, such as obtaining a General Educational Development (GED) credential. Such variations naturally cast doubt on the precision and comparability of the state reports themselves and on any national rates based on those reports.

Some improvements have been achieved over the past decade. More than three quarters of the states

have now adopted uniform definitions developed by the NCES, up from 14 in 1992. However, even in these states, the care with which dropout data are compiled and reported differs from school site to school site, just as it does from state to state.

Variance in Group Dropout Rates: Reflection of the Achievement Gap

Their general imprecision and inconsistency notwithstanding, U.S. dropout rates have yielded disconcertingly uniform information about one aspect of the phenomenon: Dropout rates have remained consistently higher in certain student groups, breaking down primarily according to race/ethnicity and socioeconomic status, although students with disabilities also have significantly higher dropout rates than the general student population. Embedded in this country's dropout rates, by anyone's calculation, is an overrepresentation of minority students, whose dropout rates exceed 50 percent in some urban schools.[1] Not surprisingly, differences by socioeconomic level are also stark: NCES numbers show that in 1999, students whose family incomes were in the lowest 20 percent nationally were five times as likely to drop out of high school as those whose family incomes were in the top 20 percent.

In 1999, the high school completion rate was 94 percent for Asian/Pacific Islander students and approximately 90 percent for white students, as compared with 83.5 percent for African American students and 63.4 percent for Hispanic students. These figures were not an anomaly. Over the past quarter century, dropout rates for African American and Hispanic students have consistently been higher than those for white students. In recent years, there has been some evidence that the gap between the rates for African American students and white students may be narrowing, but the dropout rate for Hispanic students has remained consistently higher.

Part of the concern about high-stakes testing, of course, is that rather than narrowing the achievement gap of which these disparate rates are emblematic, the current accountability push could widen it. Higher standards, without sufficient support for teachers and students, do nothing to improve student learning. As students who may already be struggling academically fall further behind and face the consequences of high-stakes assessments, dropout rates may be expected to increase. However, given the problems with defining key indicators and data collection procedures described earlier, even such simple correlations are suspect and would warrant more research.

The Narrow Focus on Tests

The temptation to focus narrowly on the impact of high-stakes assessment is understandable. Assessment is, after all, the most visible and quantifiable piece of the standards-and-accountability reform. When schools begin designing curricula based on new state standards, parents, policymakers, and other members of the public may or may not take note. But when large numbers of students start failing the new tests, people begin paying attention, especially parents and the news media. Extra attention can be beneficial, as all involved become more aware of the hard work needed for successful implementation of this reform. But often lost in that attention is the role that rigorous standards may play in the failure rate.

> The trend has been toward using high-stakes tests as the *sole* indicator for student promotion or graduation.

High school "exit" exams are the most common approach to student accountability, with approximately half the states now requiring or planning to require a test for high school graduation.[2] These tests are generally first administered in either 10th or 11th grade, with students given multiple opportunities to retake the test if they do not initially pass it. As noted earlier, growing numbers of states are also requiring that students be tested at key grade levels — most commonly, grades 4 and 8 — to inform decisions about whether to promote or retain them.[3]

In making decisions about student promotion or graduation, some states consider not just assessment scores, but additional measures of academic achievement and/or the completion of prescribed coursework. But the trend has been toward using high-stakes tests as the *sole* indicator for student promotion or graduation.[4] This accountability strategy has resulted in an increasing number of states and school districts denying promotion and graduation to students who have not performed well enough on a particular exam, irrespective of how they have performed on other measures of academic achievement.[5]

High-stakes testing itself is not new. For example, in 1984 Texas passed a comprehensive school reform law that instituted high-stakes testing of basic skills. That testing program, called the Texas Educational Assessment of Minimum Skills (TEAMS), assessed students at multiple grade levels and required that they pass an "exit level" version of the test in order to receive a high school diploma. Nevada, New Jersey, and Florida each developed high school graduation tests prior to 1980, but they, too, focused on minimum basic skills. New today is the *context* in which high-stakes tests are being used: for student and school accountability to support achievement of "world-class" standards.

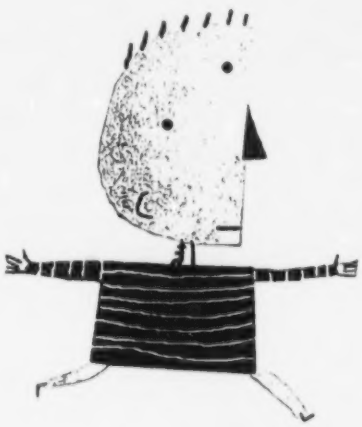
Considering Assessments in a Broader Context

Currently, all but one state (Iowa) have adopted standards-based reform, setting rigorous statewide K-12 education standards in core subjects and expecting districts and schools to align curriculum, assessment, and teacher professional development to those standards. While standards-based reform has yet to be fully implemented in most states, the standards themselves have already wrought significant changes in the academic lives of many students, showing up in tougher curriculum and assessment. For example, whereas algebra has traditionally been considered an elective course, available starting in the 9th grade, it is increasingly included in the curriculum as a 7th or 8th grade requirement. In similar fashion, while many high schools have long had a two-year math and a one-year science requirement, an increasing number of schools now require three years and two years of math and science, respectively. In short, expectations about what students will learn and about their performance levels have risen, making school life more challenging — and, in some instances more stressful — for teachers and students alike.

Rising expectations about what students will learn and about their performance levels make school life more challenging.

Forty-eight states have also implemented statewide assessments to measure the degree to which students are reaching their new standards.[6] The standards assessed on today's tests represent significantly higher levels of reasoning and problem solving than previously assessed on minimum competency tests. Using the Texas example, in 1990, changes in state

law required adoption of a more challenging testing program than TEAMS, which had covered only basic skills. The Texas Assessment of Academic Skills, which replaced TEAMS, is based on rigorous new state academic standards; these standards are continuously being reviewed and, in some cases, continue to be raised. While not all statewide assessments yet fully align with their state's academic standards, higher expectations are evident in many of the assessments. For example, reading passages that once ran less than a page in length now more commonly run 2–3 pages, with the questions that follow more difficult as well.



One result of all this is that a school can no longer promise, as many once implicitly did, that if students just stay in school and attend all their classes, they will get a high school diploma. The advent of basic skills graduation tests did not much alter this implicit "contract." However, when an exit exam is based on rigorous standards, it is not something teachers and students can "cram" for. The knowledge and understanding students are required to demonstrate on many of today's high-stakes assessments are cumulative. This means that for every learning benchmark not achieved during a student's earlier studies, the student is that much farther away from being able to pass the graduation test.

In this context, it's easy to understand why an ill-prepared student who fails in a first (or second) attempt at an exit exam might be tempted to give up and quit school entirely. Yet that's not the only possible scenario. The first failure could also serve as an early warning not only to the student, but also to the student's parents, teachers, and other key players in the student's academic life. These initial test results could trigger extraordinary services at school (e.g., tutoring, summer school, after-school homework help) and, perhaps, greater support at home (e.g., discussions about how much time the student should be spending on schoolwork versus social life or job). This added support could accelerate the student's learning to the extent that, within the next two years, he or she was able to pass the test. Poor results on an end-of-grade promotion exam could trigger a similar response; rather than automatically being retained, the student could, for example, be assigned to summer school or be provided with some form of tutoring.

In theory, this is how the standards-and-accountability model should work — with ongoing assessment (both statewide and local) serving as an early warning system, identifying students who need extra help (and the areas in which they need it), teachers who need support in adjusting their practice to better ensure student learning, and systems (both local and statewide) that need adjusting. As noted earlier, to the extent that the model is operating as conceived, dropout rates should decrease. To the extent that it's not, they may well go up. For that reason, a closer look at dropout rates and the factors underlying them is warranted. In embarking on this effort, it helps to understand what we already know — and don't know — about why students drop out.

What We Know and Don't Know About Why Students Quit School

A decision to drop out of school can be influenced by an array of factors related to the student's own makeup, his or her family, what's going on in his or her community, and what's going on in school.[7] In

the National Educational Longitudinal Study of 1988, students reported a wide variety of reasons for dropping out of school, only 77 percent school-related. And even those school-related factors most commonly cited — *did not like school, failing school, could not get along with teachers*[8] — reveal nothing about the multitude of variables underlying them: *What* made them dislike school? *Why* and when did they begin to fall behind? In what *ways* did teacher and student not connect? While studies like this suggest some broad reasons for dropping out, it is almost impossible to demonstrate a causal connection between any single factor and the decision to quit school.[9]

> Schools can no longer promise, as many once implicitly did, that if students just stay in school and attend all their classes, they will get a high school diploma.

Nonetheless, research has identified several specific school-based circumstances that appear to be predictive of students' decisions to drop out of school. It is this evidence, mainly correlational, that has led a number of researchers to theorize that higher dropout rates are or will be a negative unintended consequence of high-stakes testing, especially when that testing is based on rigorous academic standards.[10] The first two factors are so closely related as to be virtually inseparable: being retained and being overage in grade. The third factor, also closely related, is having a history of poor academic achievement as reflected in grades and test scores.

What these findings underscore is the critical nature of aligning standards, curriculum, and test content to ensure that *throughout* their academic careers students are being tested on what they have had the opportunity to learn. If high school exit exams or grade promotion exams do not reflect what students are being taught, failure rates and student dropout rates will invariably increase.

In the still relatively early days of this reform, as schools struggle to implement the curricular and instructional changes required to teach the more challenging standards-based content, there may be short-term decreases in academic achievement overall. The effects of this "disruption" on dropout rates, particularly for low-achieving students, need to be examined in fully disaggregated data sets.

Finally, to understand possible relationships between high-stakes, standards-based assessment and student dropout rates, we need to explore more comprehensive causal models. For example, while the test may be the most immediate trigger of a student's behavior, the test results may simply reflect or aggravate a history of similar low performance. The test may be seen as the messenger reflecting the school's failure to adequately incorporate into instructional practice both the rigorous new standards themselves and the expectation that *all* students could master them. Thus, while the test appears to have "caused" changes in the dropout rate, the die was cast when academic standards exceeded the system's ability to implement them for all segments of the student population.

Conclusions and Policy Recommendations

Due in part to dropout reporting inconsistencies and the fact that high-stakes tests based on high standards have not been in place for a long period of time, it is difficult to know what impact such tests have had or might have in the future. Numerous studies suggest that grade retention significantly increases a student's likelihood of quitting school — and some studies even point to

retention as the single strongest predictor of a decision to drop out. For that reason, one could assume that if increased testing for grade promotion resulted in greater retention, it would ultimately result in higher dropout rates as well. Yet more research is needed even in this area because it might be that students who consistently do poorly in school would drop out at higher rates irrespective of whether they had been retained at some point(s) because of a high-stakes test.

Most agree that it is important to have high expectations for students and that students should achieve a level of academic performance that will prepare them for life after high school. Therefore, some may argue that the benefits of more accountability and higher standards for students outweigh the risk of a few more dropouts. However, with the proper approach to implementation of standards-based reform, including high-stakes testing, this tradeoff may be avoided. Tests can and should be used as a way of identifying students early on who are at risk of failing so as to provide them with the extra help they need. Retention is not the only option — and may often be the least productive — for dealing with students who fail an early-warning test. As noted earlier, an alternative is to promote these students but provide remediation, through summer school and/or the use of tutors or after-school programs the following year. Schools could also meet the needs of these students by creating mixed grade classes (e.g., a 4th/5th). Thus, the likelihood of students quitting school may depend less on the *use* of high-stakes tests than on state accountability policies, school/district organization and structure, and how those play out in the implementation of the tests.

Given the trend toward increased use of high-stakes testing and given the continued importance of a high school diploma or its equivalent, states must develop policies and support systems that serve the complementary desires for increased student achievement and decreased dropout rates. In developing or revisiting their standards-based reform effort and the accountability system designed to support it, states could profit from considering the following policy issues:

> Retention may be the least productive option for dealing with students who fail an early-warning test.

Disclosure About Negative Unintended Consequences: Full disclosure about possible negative consequences of high-stakes testing programs is a necessary component of a statewide assessment program, as is an ongoing evaluation of these effects. To minimize unintended consequences, states should carefully monitor their accountability systems before a new test is operational and during its implementation.

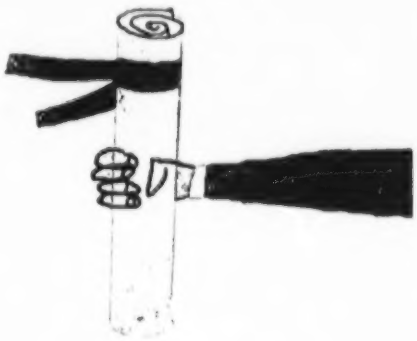
Data Collection: Keeping accurate dropout data is important. So, too, is disaggregating that data to obtain information about the relative achievement of student subgroups. Disaggregated data can also help identify struggling students early on so districts and schools can target help.[11]

Fair Phase-in Period: It is important that states allow for an adequate phase-in period, during which curriculum, teaching practice, and assessment can be aligned to the new standards. If high-stakes assessment is to play any role in enhancing student achievement, students must have an opportunity to learn the material, and teachers must receive support they need to fully understand and be able to teach to the standards on which the assessment is based.

Opportunities for Meaningful Remediation: High-stakes tests can be used for early identification of students who need extra help and to enhance instructional planning. If, for example, test results show that large numbers of students in one school

— or, even, one class — are performing poorly on certain parts of the test, it may indicate the need to further examine curriculum and/or practice.

With the recent proliferation of high-stakes tests, increasing numbers of students are assigned to remedial classes. These classes offer concentrated instruction on the specific content knowledge and skills the test is intended to measure. Some also include drills intended to familiarize students with the test format. Research needs to focus on which remediation practices increase student performance and which may frustrate and further alienate student populations who are at risk academically.



Test Retake Policies: Currently, all states with high school exit exams provide opportunities for students to retake the test if they do not pass.[12] Depending on the stakes, a test may need to be offered several times a year; however, sufficient remediation time must also be factored in lest students simply repeat their previous performance.

Sufficient Validity for Each Intended Use: If a test is to be fair, it must measure what it was designed to measure.[13] The National Research Council of the National Academy of Sciences explains that the results of tests designed and found valid for influencing classroom practice or for holding schools accountable are not necessarily appropriate as the basis for high-stakes decisions about individual students. Yet in their rush to promote academic improvement, many states have developed accountability systems in which important decisions about individual students — promotion or graduation — are based on the results of tests not designed for that purpose. Such tests may lead to inappropriate conclusions about student achievement, placing more students at risk of dropping out.

Prevention and Intervention Programs for Students at Risk: Many dropout prevention programs target middle or high school students who have already had negative school experiences and/or are already considering dropping out. These programs tend to focus on helping students overcome their longstanding problems in order to get them to complete school. In contrast, some early intervention programs, in place at the elementary level, promote student motivation and success *early* in a student's academic experience. Evidence on dropout prevention and intervention programs is weak; there have been relatively few evaluations and those that exist do not provide enough information for tailoring treatment to student subpopulations.[14]

Research Agenda

As mentioned earlier, further research is necessary to find out if there is truly a causal relationship between high-stakes testing and student dropout rates or, more importantly, to find out how standards-based reform writ large is serving students most at risk academically. As a requisite first step, more credible and extensive data collection is needed regarding student achievement, grade retention, and dropout rates. These data must be available from all states for a number of years, using uniform definitions and data-collection procedures. Student achievement and dropout data must be tracked relative to key reform initiatives within and across state lines (e.g., implementation of new standards and testing programs, reauthorization of important federal legislation).

Researchers must also develop more sophisticated causal research models that reflect all reform efforts in a state, not just the most public or controversial ones (e.g., testing). Different student populations should be accounted for in these models; in fact, significant interactions across initiatives and segments of the student population may be the most important findings of these studies. Such studies would allow states to monitor the effects of their high-stakes accountability systems and determine whether student dropout rates can be directly linked to high-stakes testing and/or any other aspects of the system.

More longitudinal studies are needed about why students drop out of school. This could entail, for example, tracking attrition patterns for different student subgroups and/or interviewing students who are considered at risk of dropping out and doing follow-up interviews with any who subsequently quit. Such research would be helpful in determining the context in which a student *begins* to withdraw from school, which, in turn, could lead to information about how to successfully counteract that process. In addition, cross-state comparisons of state accountability policies, approaches to high-stakes test implementation, and dropout intervention programs could help determine which policies and practices affect a student's success in school.

Finally, we need to remember that assessments have never existed in a vacuum. The current reform efforts pair testing with rigorous standards and increased accountability for students, teachers, schools, and the public education system. Our research models must be sophisticated enough to determine the differential effects of each of these factors on the full range of outcome measures, not the least of which are dropout rates for all students and student groups.

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ENDNOTES

[1] Kaufman et al., 2000, Rumberger, 2000

[2] Achieve, 2001

[3] Currently, at least 12 states use statewide assessments to determine whether a student is promoted or retained a grade (Shore, Madaus, & Clarke, 2000)

[4] Disability Rights Advocates, 2001

[5] Heubert, 2000

[6] Achieve, 2000, American Federation of Teachers, 1999

[7] Rumberger, 2000

[8] Berktold et al., 1998, Rumberger, 2000

[9] Rumberger, 2000

[10] Commonwealth Educational Policy Institute, 2000, Heubert, 2000, Hauser, 1999, Disability Rights Advocates, 2001, Rumberger, 2000, Clarke, Haney, & Madaus, 2000, Haney, 2001

[11] Stake, 1999

[12] Achieve, 2001

[13] American Educational Research Association, American Pyschological Association, & National Council on Measurement in Education, 1999

[14] Rumberger, 2000

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This report was produced in whole or in part with funds from the Office of Educational Research and Improvement, U.S. Department of Education, under contract #ED-01-CO-0019. Its contents do not necessarily reflect the views or policies of the Department of Education.

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